

**National Transportation Safety Board  
Washington, DC 20594**

**Brief of Accident**

**Adopted 12/06/2002**

DEN02TA052 File No. 12524	06/09/2002	Grand Junction, CO	Aircraft Reg No. N123Z	Time (Local): 20:30 MDT		
Make/Model:	Beech / 58P			Fatal	Serious	Minor/None
Engine Make/Model:	Continental / TSIO-520-WB		Crew	0	0	1
Aircraft Damage:	Substantial		Pass	0	0	0
Number of Engines:	2					
Operating Certificate(s):	None					
Type of Flight Operation:	Aerial Observation					
Reg. Flight Conducted Under:	Public Use					
Last Depart. Point: Grand Junction, CO			Condition of Light: Day			
Destination: Local Flight			Weather Info Src: Weather Observation Facility			
Airport Proximity: Off Airport/Airstrip			Basic Weather: Visual Conditions			
			Lowest Ceiling: None			
			Visibility: 9.00 SM			
			Wind Dir/Speed: 180 / 020 Kts			
			Temperature (°C): 33			
			Precip/Obscuration: None / None			
Pilot-in-Command	Age: 44		Flight Time (Hours)			
Certificate(s)/Rating(s)			Total All Aircraft: 5484			
Airline Transport; Flight Instructor; Commercial; Military; Multi-engine Land; Single-engine Land; Glider			Last 90 Days: 79			
Instrument Ratings			Total Make/Model: 1880			
Airplane			Total Instrument Time: 817			

The pilot departed Grand Junction, Colorado (GJT) on fire assignment as a Forest Service lead airplane, to the Coal Seam Fire in Garfield County, Colorado, in the vicinity of Glenwood Springs. The pilot reported experiencing low-level wind shear and light, moderate, and severe turbulence from just after takeoff through arriving at the area of operation. Following a reconnaissance of the fire, the pilot reported climbing to approximately 5,000 feet agl (above ground level) to avoid the turbulence and wait for wind conditions to improve so that tanker operations (aircraft dropping fire suppressant chemicals on the wildfire) could begin. The pilot reported that wind conditions improved and tanker operations commenced. On conclusion of the tanker operations, the pilot returned to GJT. The pilot reported he was in the vicinity of the Book Cliffs, approximately 10 miles northeast of GJT, approximately 2,000 feet agl in a low power descent, and an airspeed of approximately 150-160 knots, when he encountered one significant event of severe turbulence. The pilot reported the winds were out of the southwest at 20 knots with gusts to 29 knots. The airplane continued to GJT and landed uneventfully. The aircraft damage was noted the following morning during a routine preflight inspection. An examination of the airplane showed the top skin of the airplane's left wing, between the fuselage and the left engine nacelle, was buckled. No other anomalies were found. The reported winds at GJT, 34 minutes prior to the event, were 180 degrees at 20 knots with gusts to 28 knots.

Brief of Accident (Continued)

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Grand Junction, CO

Aircraft Reg No. N123Z

Time (Local): 20:30 MDT

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Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: CRUISE

Findings

1. (C) FLIGHT INTO ADVERSE WEATHER - INADVERTENT - PILOT IN COMMAND
2. (F) WEATHER CONDITION - TURBULENCE, TERRAIN INDUCED
3. WING, SPAR - BENT
4. WING, SKIN - BUCKLED

Findings Legend: (C) = Cause, (F) = Factor

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The National Transportation Safety Board determines the probable cause(s) of this accident as follows.  
the pilot's inadvertent flight into adverse weather conditions. A factor contributing to the accident was the terrain-induced turbulence.